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UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE
TENNESSEE

184" CYCLOTRON
RADIATION MEASUREMENT OF BREECH LOAD PROBE HEAD

by

Arnold Reyenga

University of California

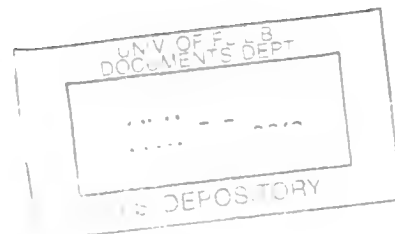
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Date of Manuscript: Unknown

Document Declassified: May 23, 1947

This document consists of 3 pages



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184" CYCLOTRON

RADIATION MEASUREMENT OF BREECH LOAD PROBE HEAD

By Arnold Reyenga

Experiment done by: D. Sewell, W. Grimshaw, and A. Reyenga

Introduction

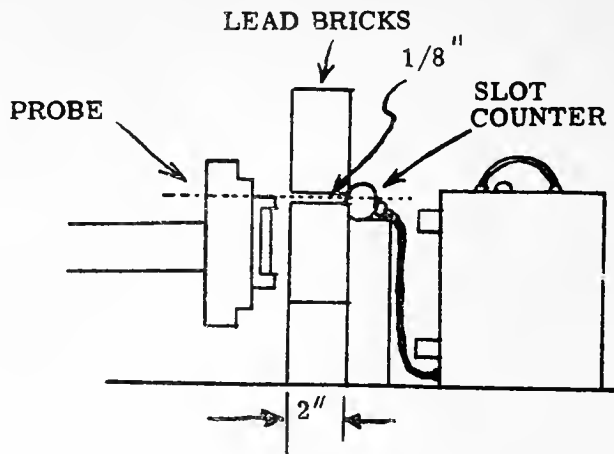
This experiment was performed in order to measure and plot the radiation intensity across the face of the probe head, thereby noticing the points of high intensity and learning how much radiation is lost because of the beam not striking the foil.

Experimental Setup

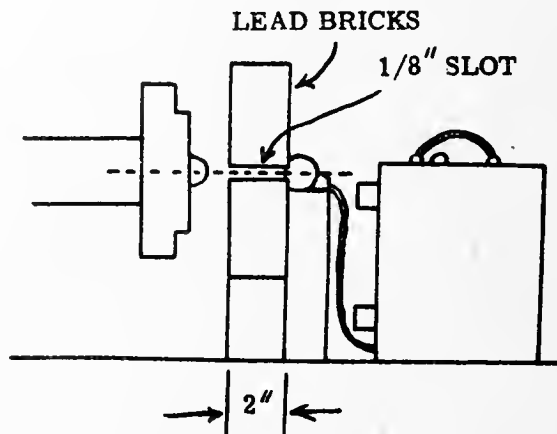
The experiment was set up as shown on the sketches, starting just below the zero position and moving the probe head up past the 1/8" slot in small steps. The probe was set at 81" radius during the bombardment.

Results

The results shown by the graph indicate a high intensity point (21 mr/hr) on the top outside edge of the copper foil holder, another high intensity point (18.5 mr/hr) on the foil just above the median plane, and another high intensity peak (13 mr/hr) on the lower outside edge of the copper foil holder.

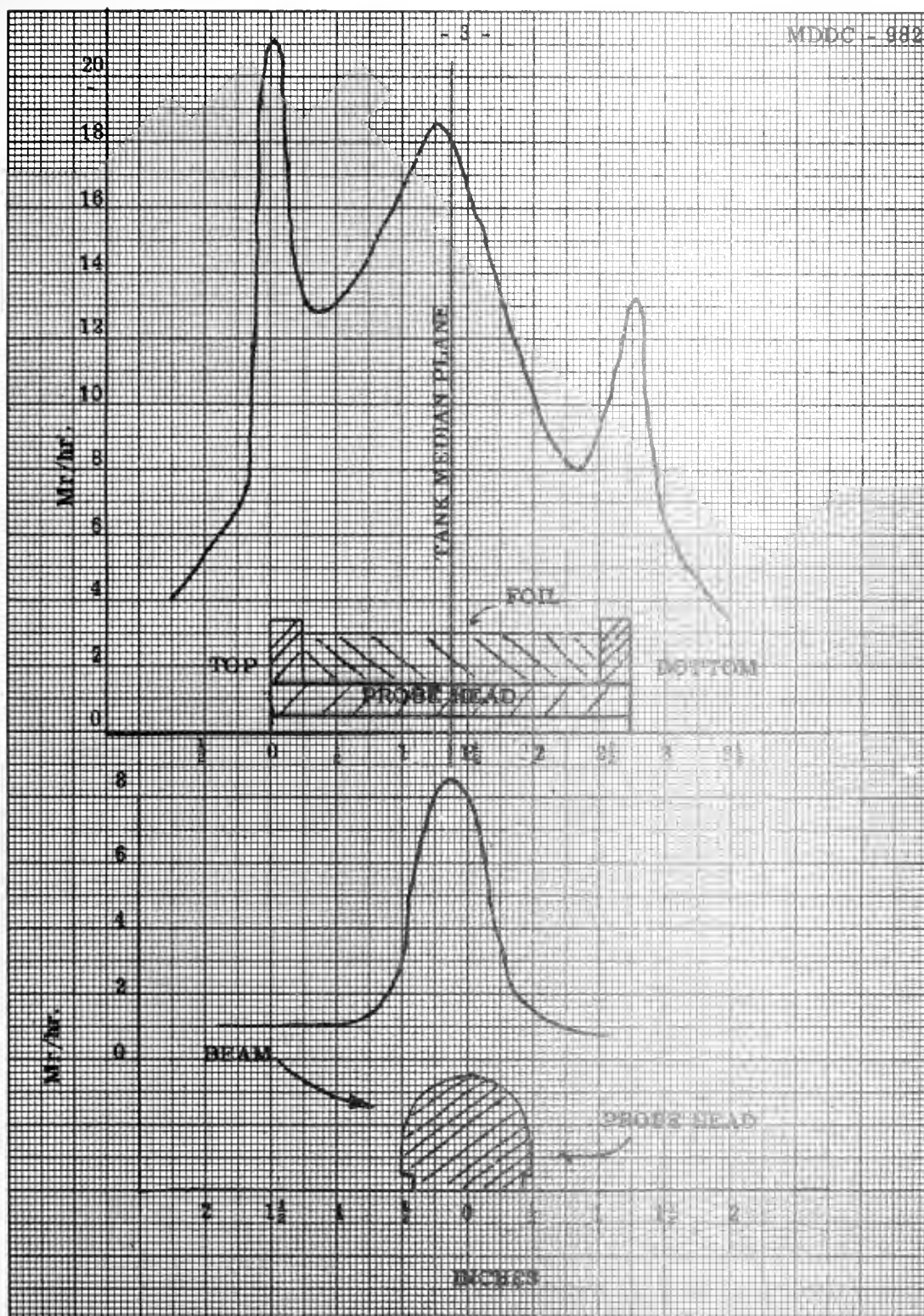


O-POSITIONS



SEE PROBE DRAWING NO. 3B3265

LEAD SHIELD DRAWING NO. 3B3071 WAS NOT IN PLACE DURING
THIS BOMBARDMENT.



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